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RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
GROUP 2675
PATENT APPLICATION

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Ken-ichi TAKATORI, et al.

Appln. No.: 09/256,346

Confirmation No.: Unknown

Group Art Unit: 2675

Filed: February 24, 1999

Examiner: A. Nelson

For: LIQUID CRYSTAL DISPLAY APPARATUS AND METHOD OF DRIVING THE
SAME

REQUEST FOR RECONSIDERATION

ATTN: BOX AF
Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the Office Action dated August 28, 2001, reconsideration and allowance of all claims are respectfully requested. Upon entry of this Request, claims 1-19 are pending in the application. Applicant respectfully submits that the pending claims define patentable subject matter.

As a preliminary matter, Applicant thanks the Examiner for indicating that claims 1-9 and 16-19 are allowed

Claims 10-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Okada et al. (USP 4,800,382) in view of Kamiya et al. (USP 4,694,348). Applicant respectfully submits that the claims 10-15 would not have been rendered obvious in view of the combined references.

REQUEST FOR RECONSIDERATION
U.S. Patent Application No. 09/256,346

Independent claim 10 recites a method for driving a liquid crystal display element forming a scan line in a frame composed of a first field and a second field comprising the steps of (a) writing data a plurality of times in the scan line in the first field by use of a predetermined signal voltage; and (b) writing data a plurality of times in the scan line in the second field by use of a signal voltage whose polarity is opposite to that of the predetermined signal voltage. As shown Figures 24 and 25 of the present application, the operation of writing a positive data signal is repeated a plurality of times (four) to form a first field, and the operation of writing a negative data signal is repeated a plurality of times (four) to form a second field.

Independent claim 11 recites a method for driving a liquid crystal display element forming a scan line, the method comprising writing data a plurality of times in a frame by use of a signal voltage having a polarity which becomes alternately positive and negative during the frame at a predetermined frequency, wherein the data is written a plurality of times when the polarity of the signal voltage is positive and a plurality of times when the polarity of the signal voltage is negative. The method of claim 11 is illustrated in Figure 26 of the present application.

With regards to independent claims 10 and 11, the Examiner maintains that Okada et al. (Okada) discloses all of the features of claims except for “writing data a plurality of times in the field of the frame and writing data a plurality of times of a second field of the frame for a single display element”, which the Examiner asserts is disclosed by Kayima et al. (Kayima). However, Applicant respectfully submits that Kayima (Fig. 2a) does not teach or suggest writing data a plurality of times in the scan line in the first field by use of a predetermined signal voltage; and (b) writing data a plurality of times in the scan line in the second field by use of a signal voltage

REQUEST FOR RECONSIDERATION
U.S. Patent Application No. 09/256,346

whose polarity is opposite to that of the predetermined signal voltage, as recited in independent claim 10 (i.e., data for a single scan line is written more than once for each field). Rather, Kayima discloses writing data one time in a scan line in the first field and writing data one time in the scan line in the second field (i.e., data for a single scan line is only written once for each field). As shown in Figures 3(A), 3(B), 4(A) and 4(B) of Kayima, two scanning lines (one for each field) are displayed by the action of a first scanning electrode and two scanning lines (one for each field) are displayed by the action of a second scanning electrode.

Similarly, Applicant respectfully submits Kayima does not teach or suggest writing data a plurality of times when the polarity of the signal voltage is positive and a plurality of times when the polarity of the signal voltage is negative during a single frame, as recited in claim 11. Rather, as discussed above, Kiyama discloses writing data only once in a frame when a signal voltage is positive and writing data only once in a frame when the signal voltage is negative (i.e., tri-state scanning electrode selection signals TP1-TP4 are positive and negative only once per frame).

Accordingly, Applicant respectfully submits that independent claims 10 and 11, as well as dependent claims 12-15, should be allowable because the applied references do not teach or suggest all of the features of the claims.

In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

REQUEST FOR RECONSIDERATION
U.S. Patent Application No. 09/256,346

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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